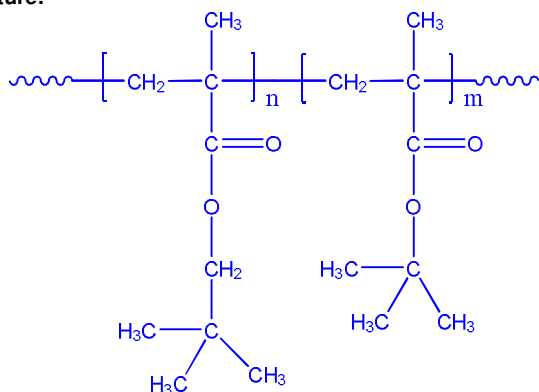


**Sample Name:** Poly(neopentyl methacrylate-b- t-butyl methacrylate)

**Sample #:** P6341-NPMAtBMA

**Structure:**

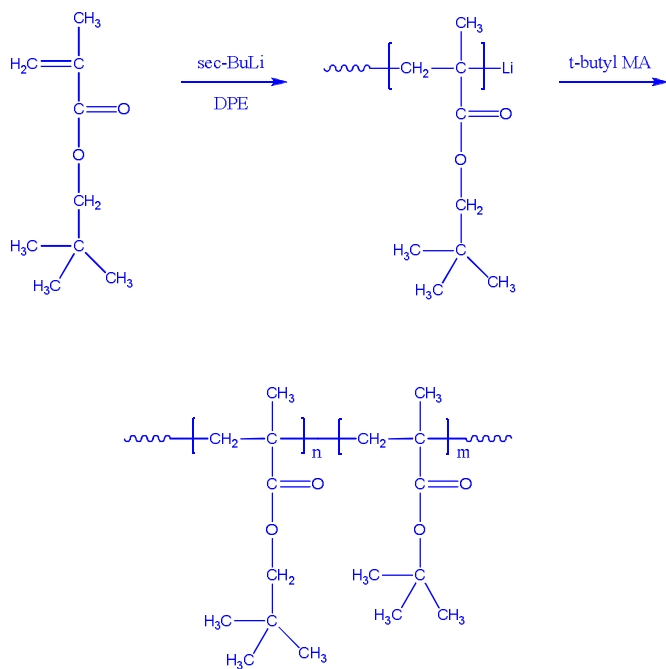


**Composition:**

Mn x 10 <sup>3</sup> PNPMA-b-PMAA	PDI
9.6-3.3	1.08

**Synthesis Procedure:**

Poly(neopentyl methacrylate-b-t-butyl methacrylate) is prepared by living anionic polymerization with sequence addition of neopentyl methacrylate followed by t-butyl methacrylate. The scheme of the reaction is illustrated below:



**Characterization:**

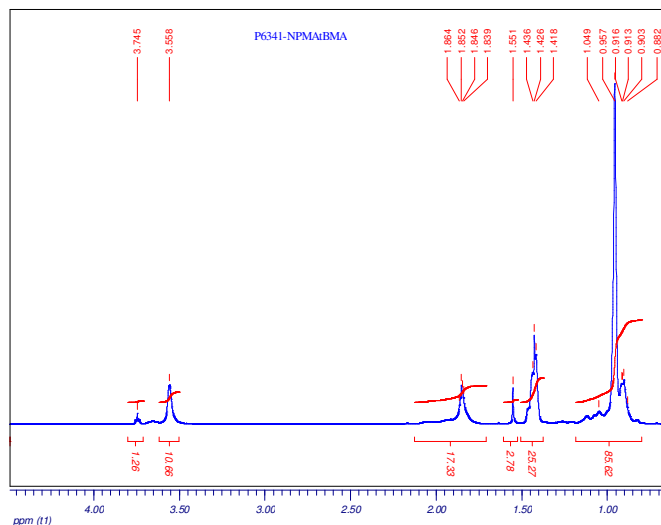
An aliquot of the anionic poly(neopentyl methacrylate) block was terminated before addition of t-butyl methacrylate and analyzed by size exclusion chromatography (SEC) to obtain the molecular weight and polydispersity index (PDI). The final block copolymer composition was calculated from <sup>1</sup>H-NMR spectroscopy by comparing the peak area of the t-butyl methacrylate protons at 1.43 ppm with the peak

area of the neopentyl methacrylate protons at 1.0 ppm. Copolymer PDI is determined by SEC.

**Solubility:**

Poly(neopentyl methacrylate-b-t-butyl methacrylate) is soluble in THF and chloroform.

**<sup>1</sup>H-NMR Spectrum of the block copolymer:**



**SEC of the block copolymer:**

